structures **18** which are essentially constituted by trough-shaped indentations **20**. In accordance with the embodiment shown in **FIG. 3**, the trough-shaped indentation **20** has a plane bottom surface **22** on which the sensor element **12** is arranged. In accordance with the embodiment shown in **FIG. 4**, the surface **22** is provided with a pedestal-like elevation **24** on which the sensor element **12** is arranged.

[**0018**] **FIG. 5** shows a variant in which the magnet **14** has a convex symmetrical shape with respect to the sensor element **12**, while the surface **22** is convex in the y direction. In the area of the sensor chip **12**, the surface **22** is, however, plane. An analog variant is shown in **FIG. 6** in which the surface **22** is convex in the x direction. Furthermore, the supporting magnet **14** is wedge-shaped in the x direction.

[**0019**] Embodiments other than the ones shown in the Figures are possible within the scope of the invention. Differently chosen structures of the magnets **14** are of course also feasible when it is thereby achieved that the magnetic flux lines **25** of the magnet **14** perpendicularly to the surface **16**, i.e. perpendicularly to the x/y plane, emerge from the magnet **14** in the area of the sensor element **12**.

[**0020**] This is shown by way of example in **FIG. 7** with reference to the magnet **14** shown in **FIG. 3**. The Figure is a sectional view of the magnet **14** with the indentation **20** constituting the structure **18**. In this representation, the plane of the drawing coincides with the y/z plane. It is clear from the Figure that the indentation **20** deflects the magnetic flux lines **25** outside the magnet **14** in such a way that the magnetic flux lines **25** emerge essentially perpendicularly to the surface **16** without any deflection in the y direction in the sensitive area **26**, i.e. in the area in which the sensor element **12** is arranged. This leads to only a minimal magnetic field H_y in the sensitive area **26**. This quasi-unavailable magnetic field H_y can therefore not lead to an offset of the sensor element **12** in its sensing direction, i.e. in the y direction.

1. A magnetoresistive sensor comprising at least one sensor element for measuring a magnetic field, and a magnet assigned to the sensor element, characterized in that the magnet (**14**) has structures (**18**) which lead to a perpendicular guidance of magnetic flux lines (**25**) from the magnet (**14**) in the sensing direction (y direction) at least in the sensitive area (**26**) of the sensor (**100**).

2. A magnetoresistive sensor as claimed in claim 1, characterized in that the structures (**18**) are formed in a surface (**16**) facing the at least one sensor element (**12**).

3. A magnetoresistive sensor as claimed in claim 1, characterized in that the magnetic flux lines (**25**) are guided perpendicularly with respect to the surface (positioning plane) (16) in the sensitive area (**26**).

4. A magnetoresistive sensor as claimed in claim 1, characterized in that the surface (**16**) comprises a trough-shaped indentation (**20**) in which the sensor element (**12**) is arranged.

5. A magnetoresistive sensor as clamed in claim 1, characterized in that the indentation (**20**) has a plane bottom surface (**22**).

6. A magnetoresistive sensor as claimed in claim 1, characterized in that the bottom surface (**22**) constitutes a pedestal-like elevation (**24**) for accommodating the sensor element (**12**).

7. A magnetoresistive sensor as claimed in claim 1, characterized in that the indentation (**20**) has a concave shape.

8. A magnetoresistive sensor as claimed in claim 7, characterized in that the concave shape extends in the y direction.

9. A magnetoresistive sensor as claimed in claim 7, characterized in that the concave shape extends in the x direction.

10. A magnetoresistive sensor as claimed in claim 1, characterized in that the overall magnet (**14**) is concave-shaped with respect to the surface (**16**).

11. A magnetoresistive sensor as claimed in claim 1, characterized in that the supporting magnet (**14**) is wedge-shaped.

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